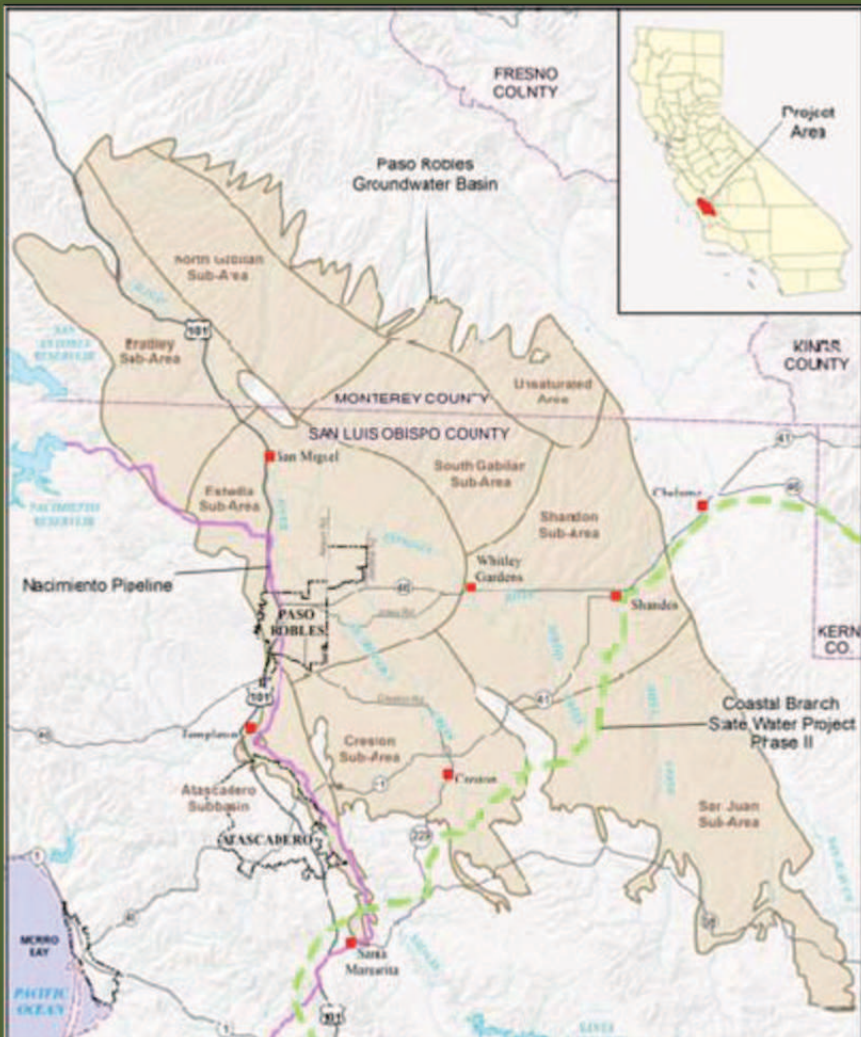


# Long Term Management Efforts

## Paso Robles Groundwater Basin



**Mission Statement:** Public Works will be a valued community partner enhancing quality of life for our fellow county residents



# Presentation Overview

- Groundwater Management Setting
- Current Collaborative Management Efforts
- Integration with the Sustainable Groundwater Management Act

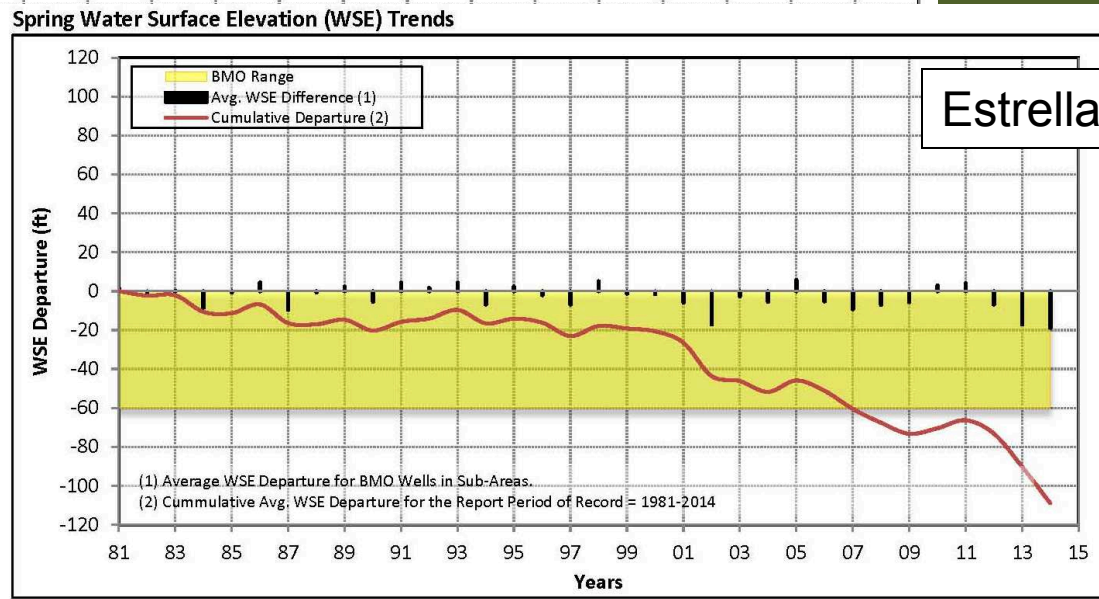
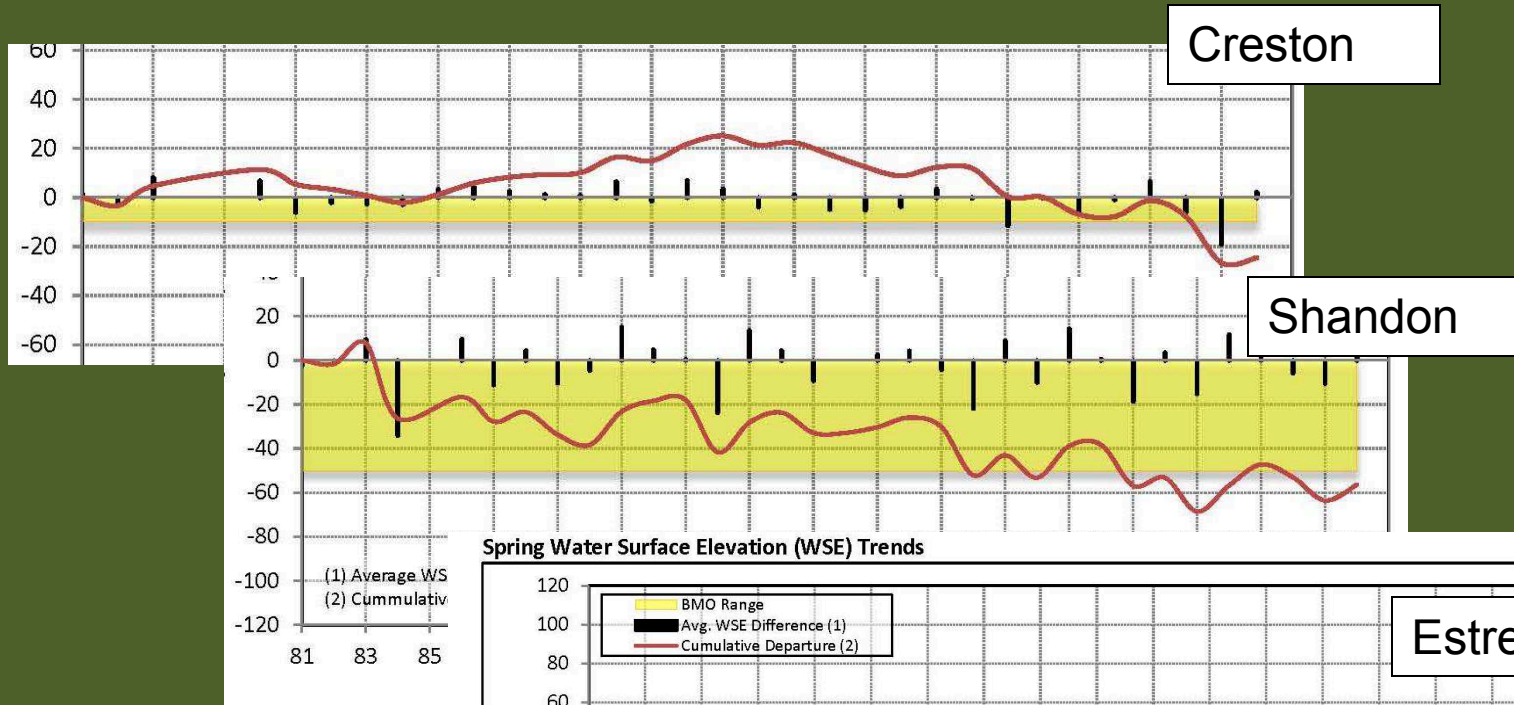
# Previous Management Setting



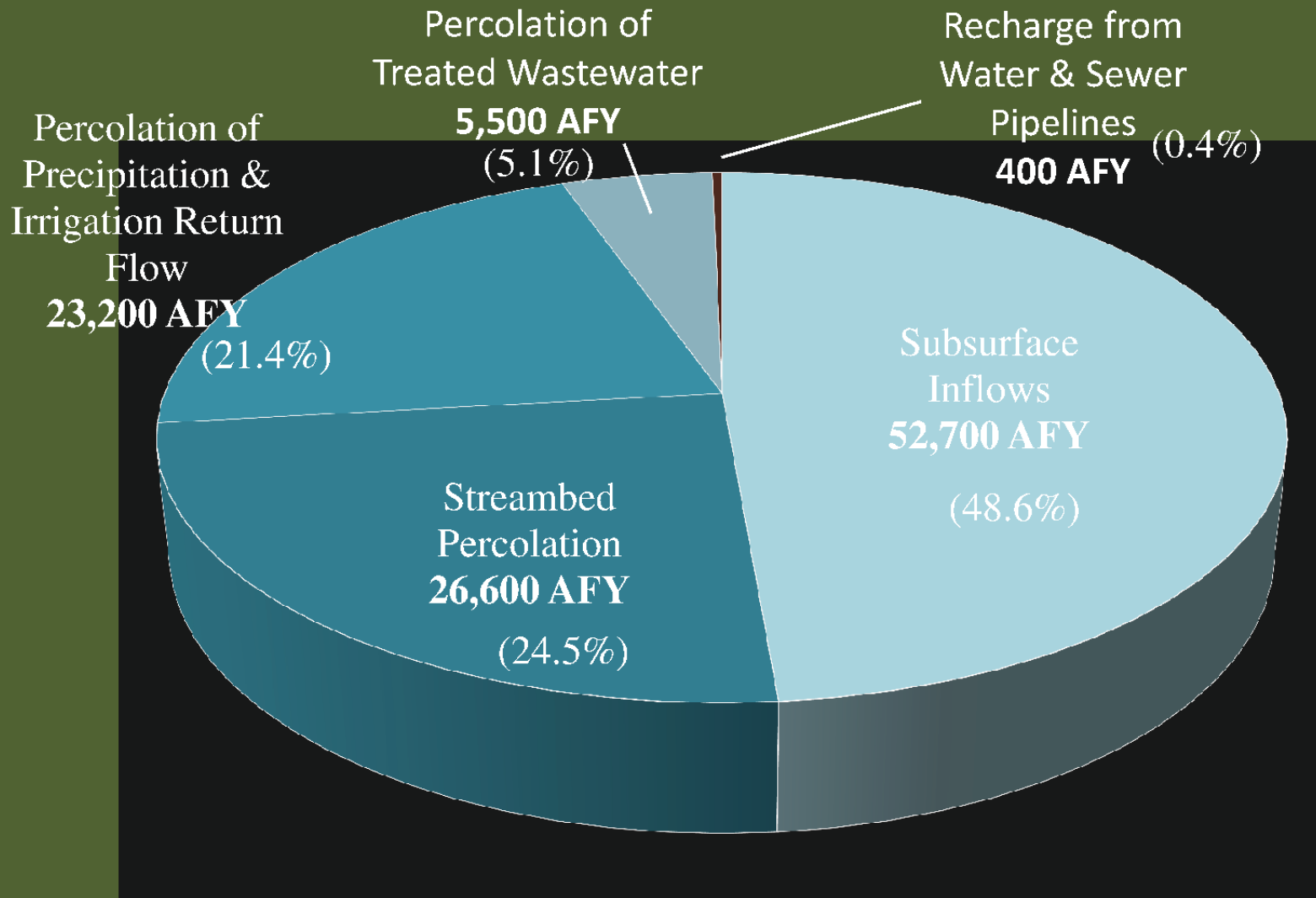
# County Efforts

Public Works Department	Planning Department
2002 Basin Study	Resource Capacity Study
2005 Basin Model	LOS III
Basin Agreement – Technical Consultant	Urgency Ordinance
Banking Study	Water Conservation Programs
Water Balance/Pumping Updates	
<b>Voluntary Groundwater Management Plan</b>	
Supply Options Study	
Model Update	

# Basin Management Objectives

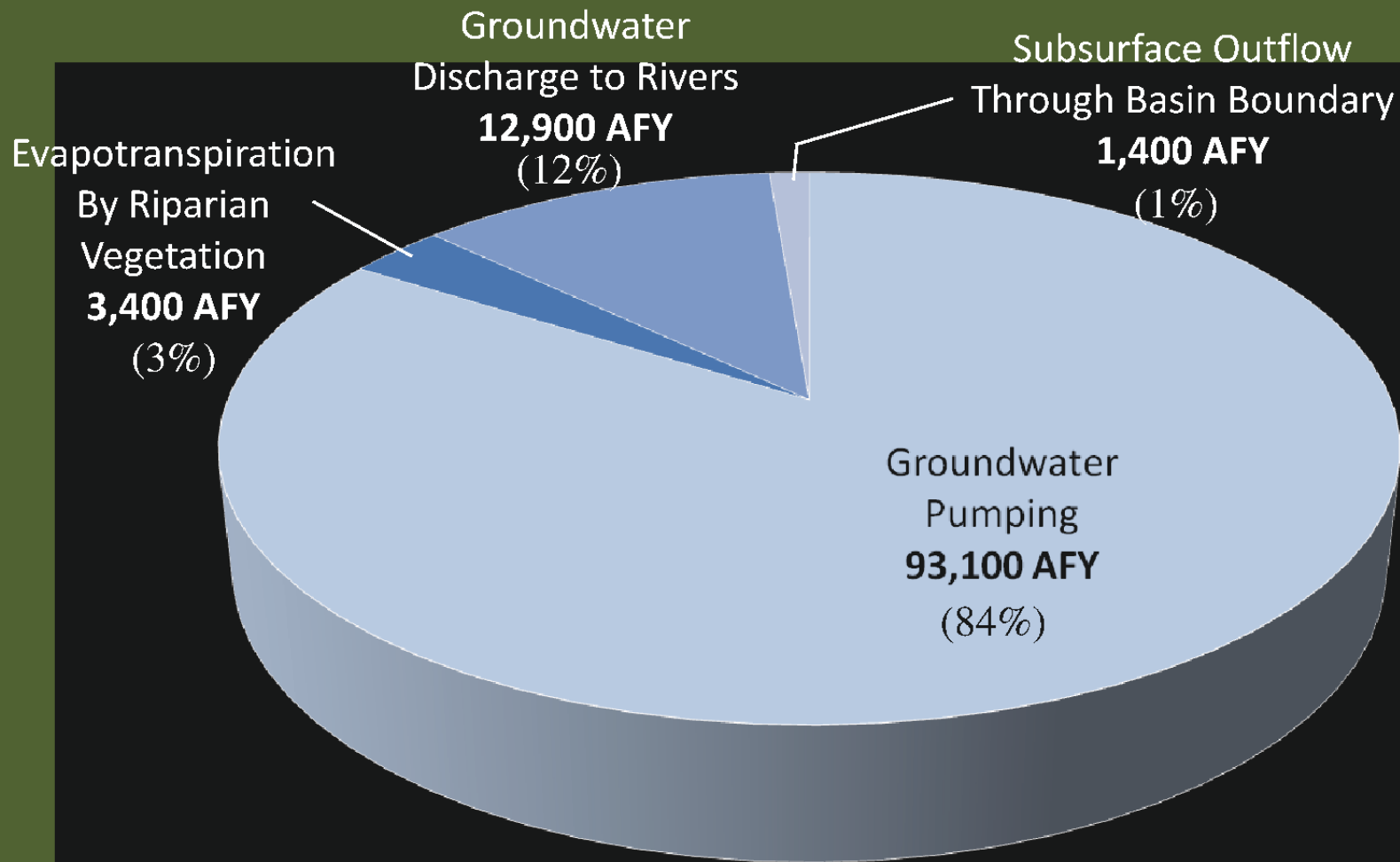


# Average Annual Inflows (1981-2011)



**TOTAL AVERAGE ANNUAL INFLOW = 108,400 AFY**

# Average Annual Outflows (1981-2011)



**TOTAL AVERAGE ANNUAL OUTFLOW = 110,800 AFY**

# Water Balance for Recalibrated Basin Model

**Total Inflow – Total Outflow = Change in Groundwater Storage**

## **Water Balance of Paso Robles Groundwater Basin Average of 1981 – 2011 [AFY]**

Total Inflow	Total Outflow	Change in Storage
108,400	110,800	-2,400



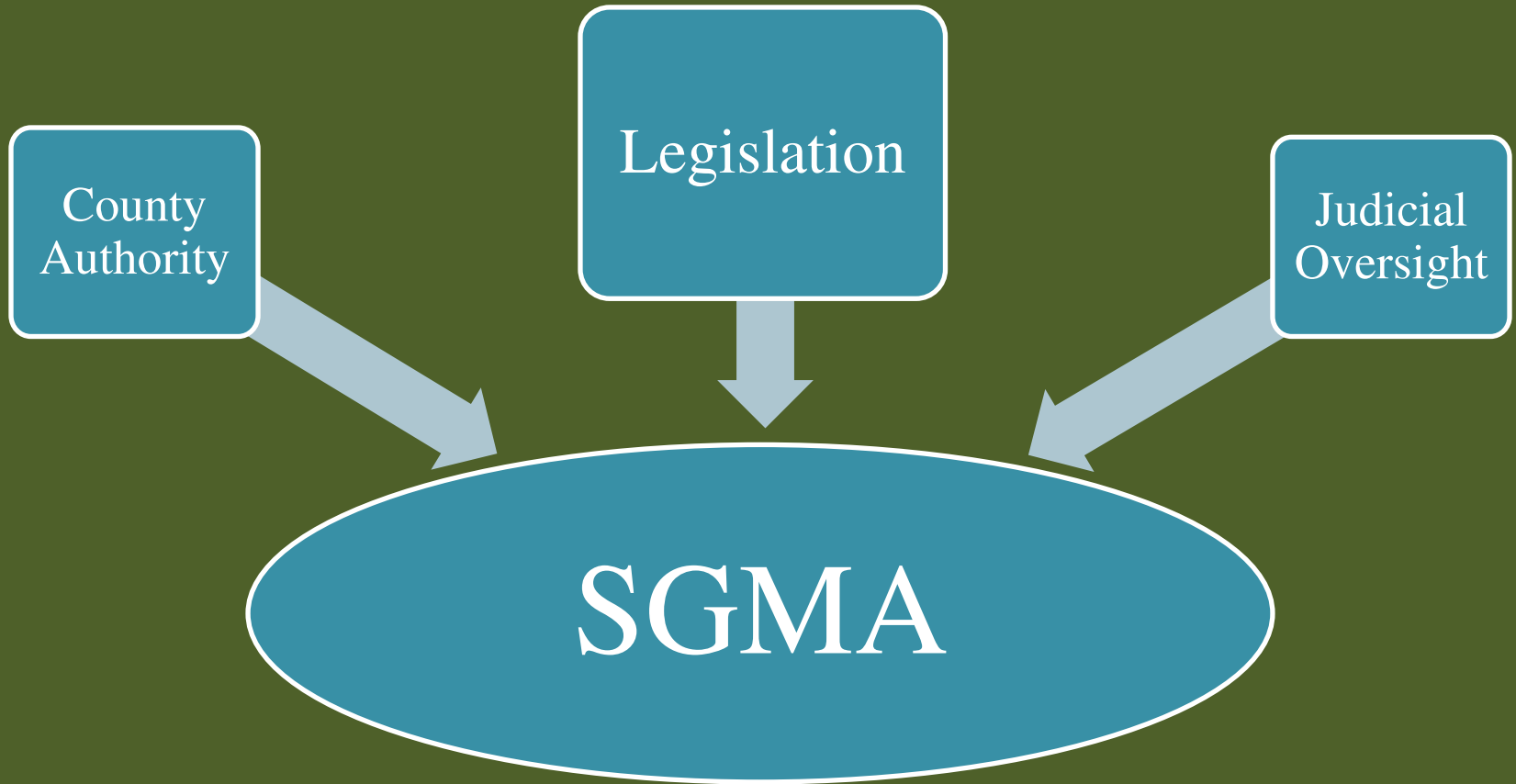
# Perennial Yield Estimate

**Hydrologic Base Period = Covers Wet, Dry and Average Hydrologic Cycles**

**Average of Base Period 1982 – 2010 [AFY]**

Total Pumping	Change in Storage	Perennial Yield
92,600	-2,900	89,600

# Current Management Setting



# Legislation

- Transitioning to a new governance structure
- Transitioning from an AB 3030 Groundwater Management Plan to a Groundwater Sustainability Plan

# Water, water everywhere . . .

- Conservation Programs
- Optimize Naciminto Water Project
- Land Use Management
- Recycled Water
- Optimize State Water Project
- Groundwater Banking/Recharge
- Groundwater Supply
- Salinas Reservoir Expansion/Exchange
- Desalination
- Lopez Lake Expansion/Exchange
- Precipitation Enhancement
- New Off/On-Stream Storage/Recharge

# ... water is for fighting(?)

- Diversity
- Cost
- Fairness



- Understanding and accepting how our demands and climate change affect water resources and management efforts

Who decides how sustainability will be achieved given limited resources and diverse economic circumstances?

# Governance Structure



# AB2453

## Paso Robles Basin Water District

- Provides for the formation of a new water district
- 9 member board
- Authorizes the district to develop, adopt, and implement a groundwater management plan
  - Collect data
  - Require conservation
  - Impose extraction charges
  - Establish extraction allocations
  - Implement SGMA





# Paso Robles Basin Water District

## 9 Member Board of Directors Election Process

### BOARD OF DIRECTORS SEATS

### ELIGIBLE POOL OF BOARD OF DIRECTORS CANDIDATES

### WHO CAN VOTE?

### HOW MANY VOTES?

#### Registered Voters Seats



3

Registered Voters within the Water District boundary

Registered Voters within Water District Boundary

1

Per Registered Voter within the Water District boundary

#### Landowner Seats



6

Any Landowner (resides within two miles of the Water District boundary, or within the boundaries of various surrounding agencies) can run for any land-size category

#### SMALL LANDOWNERS

Owning less than 40 acres

#### MEDIUM LANDOWNERS

Owning 40 acres or more but less than 400 acres

#### LARGE LANDOWNERS

Owning 400 acres or more

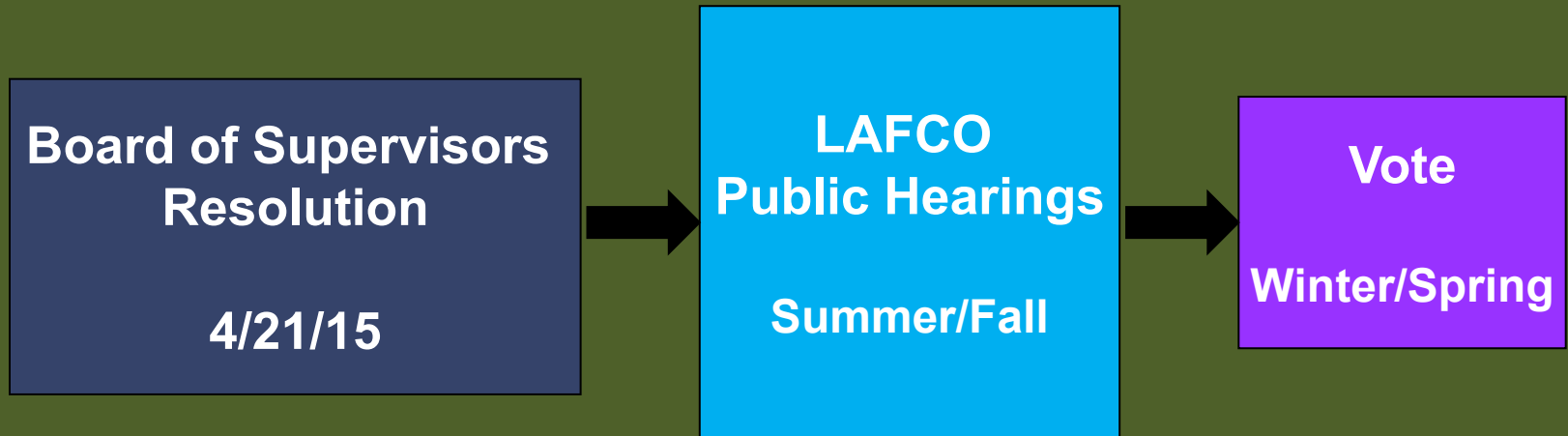
Acreage Owned

Landowners can only vote within their ownership category, and weighted by acreage owned.



# AB2453

## Formation Process



# AB2453

## The Decisions

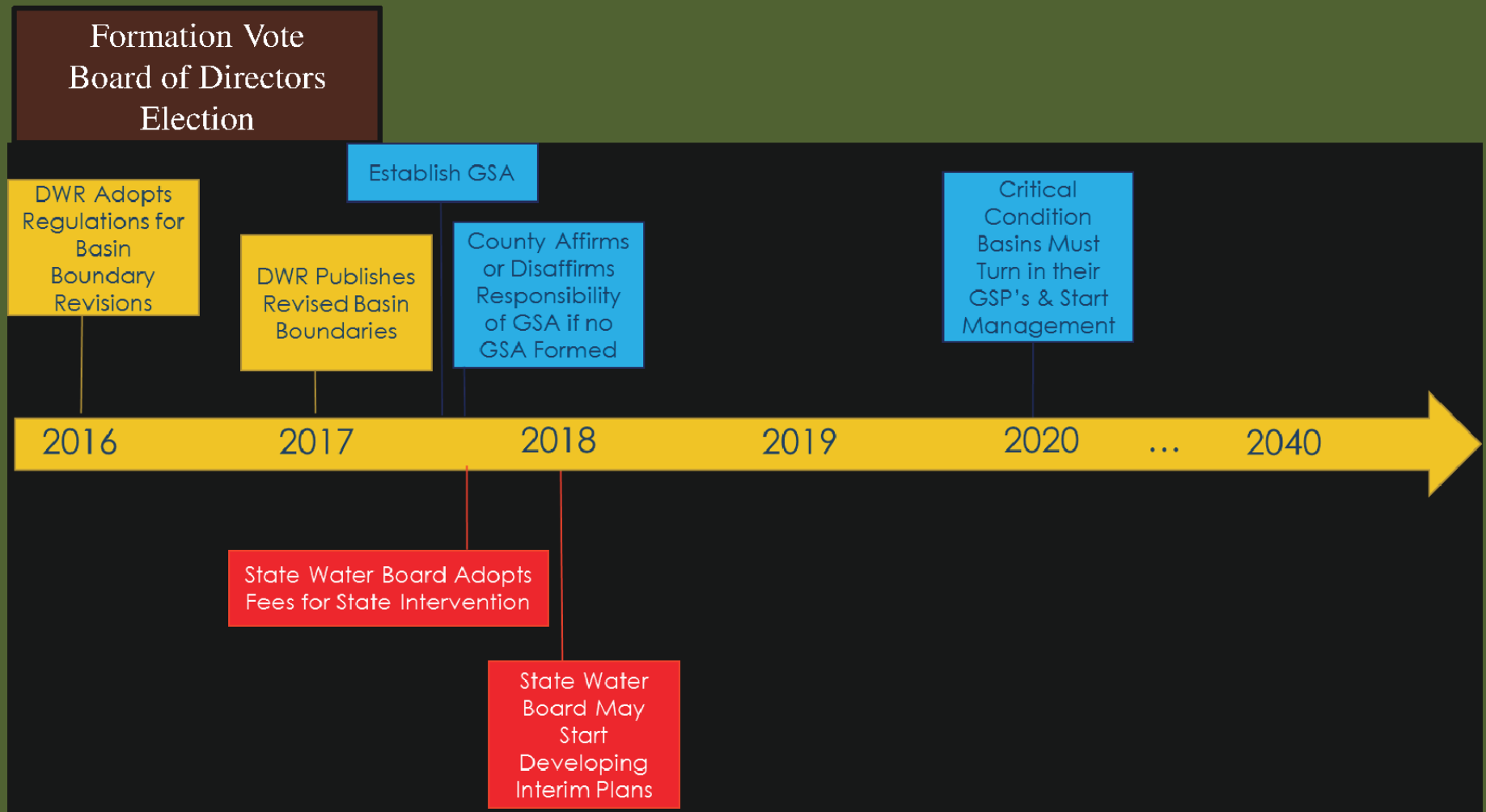
- Form the District?
  - One landowner, one vote
- Elect Nine Board Members
- Fund the District?

# AB2453

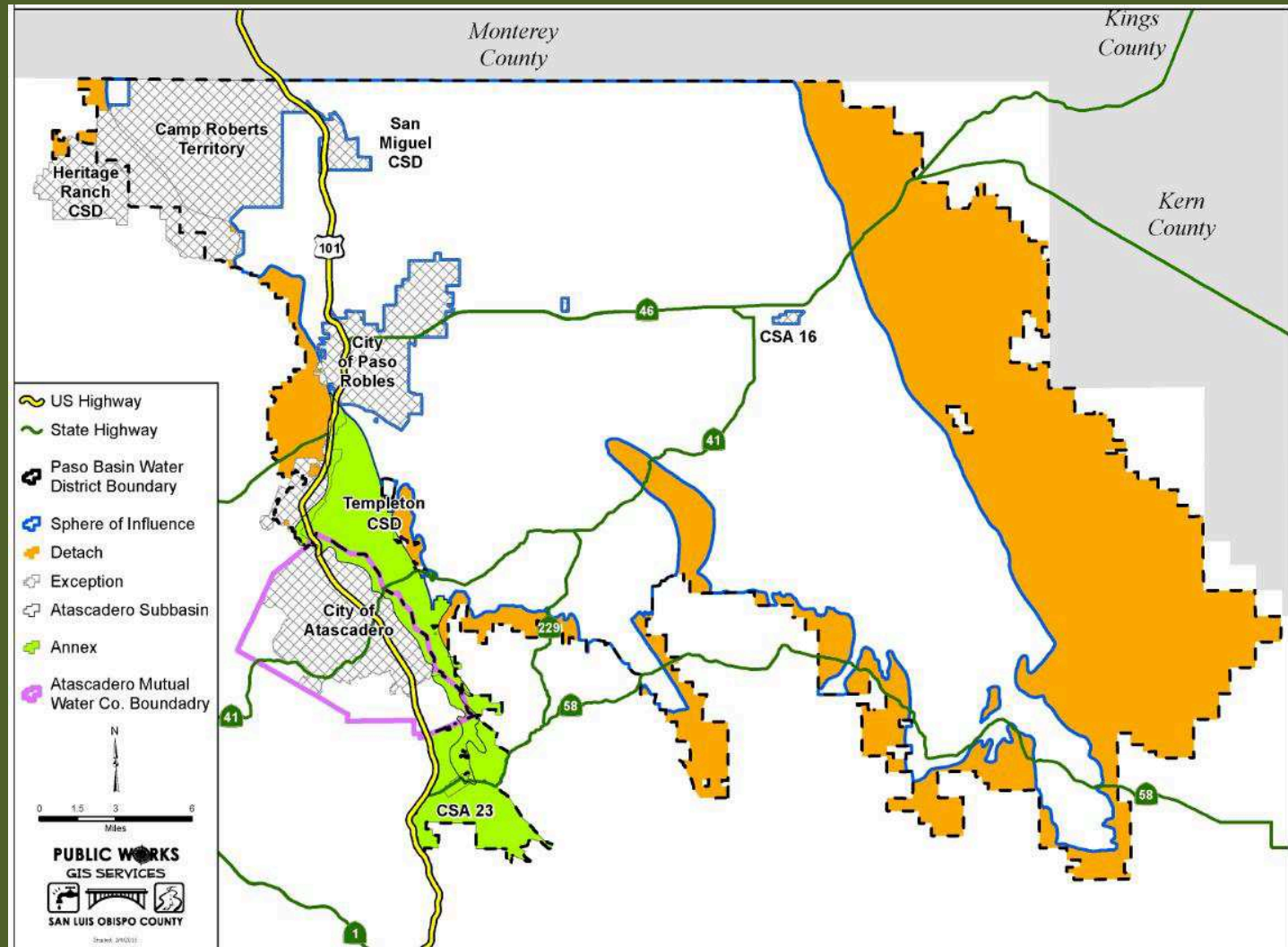
## Funding the District

- Subject to prop 218 public decision process
- Board of Supervisors directs type of process
- Summer/Fall - Board deliberations

# Timing Considerations



# Groundwater Sustainability Agency(ies?)

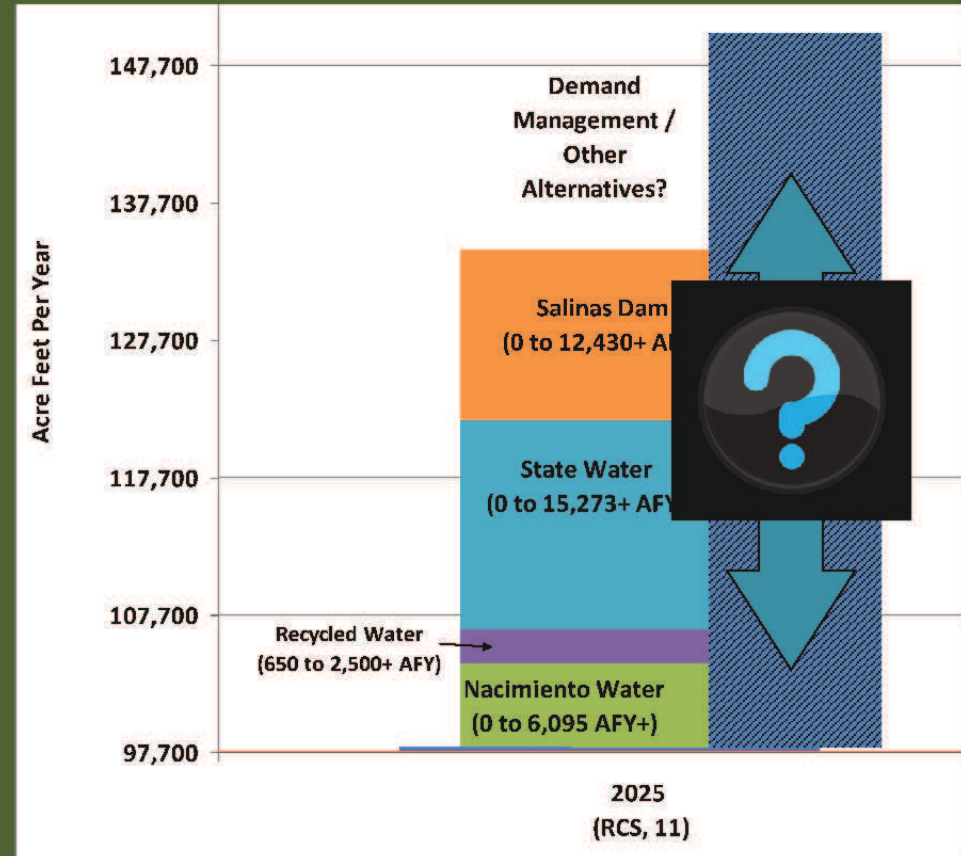
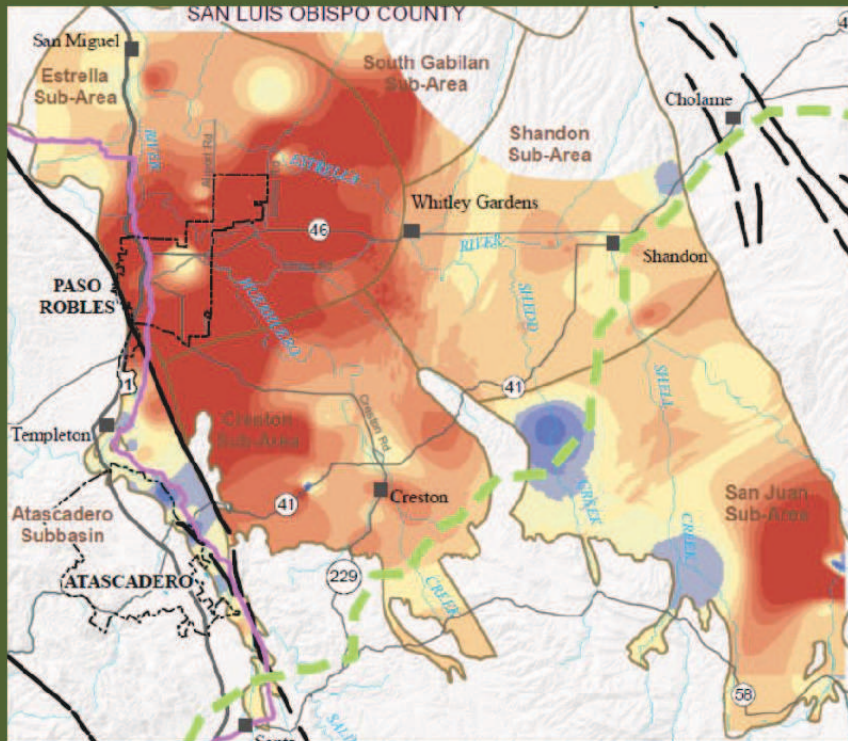


# Groundwater Sustainability Plan(s?)

- AB 3030 Groundwater Management Plan
  - Monitoring Improvements
  - Computer Modeling
  - Supplemental Water Supply Options Study
  - Conservation Programs
  - Active Advisory Committee
- Integrated Regional Water Management Program
  - Salt and Nutrient Management Plan
  - Percolation Areas Study
  - Funding Opportunities
- US Bureau of Reclamation Basin Study Program
  - Salinas River Basin Study (potential)



# Supplemental Supply Options



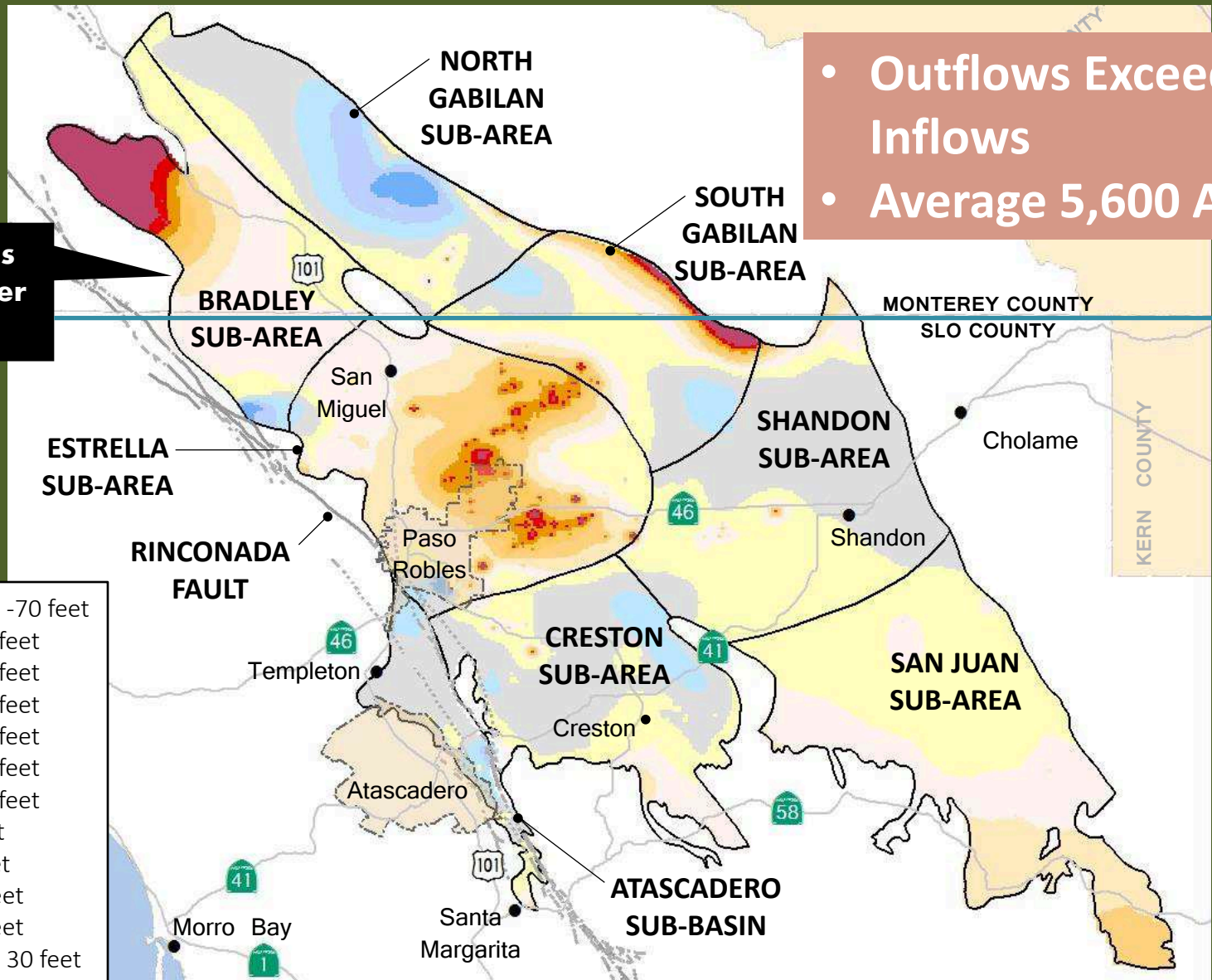
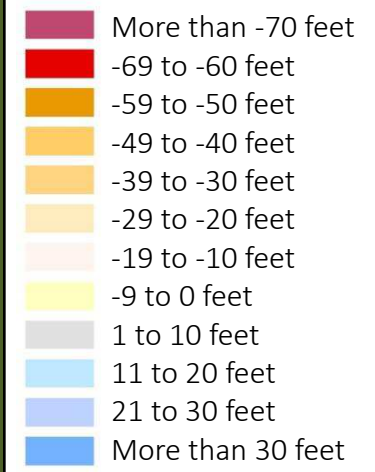


# Change in Layer 4 Groundwater Elevations (2012-2040)

## Model Run 1 – Baseline with No Growth

- Outflows Exceed Inflows
- Average 5,600 AFY

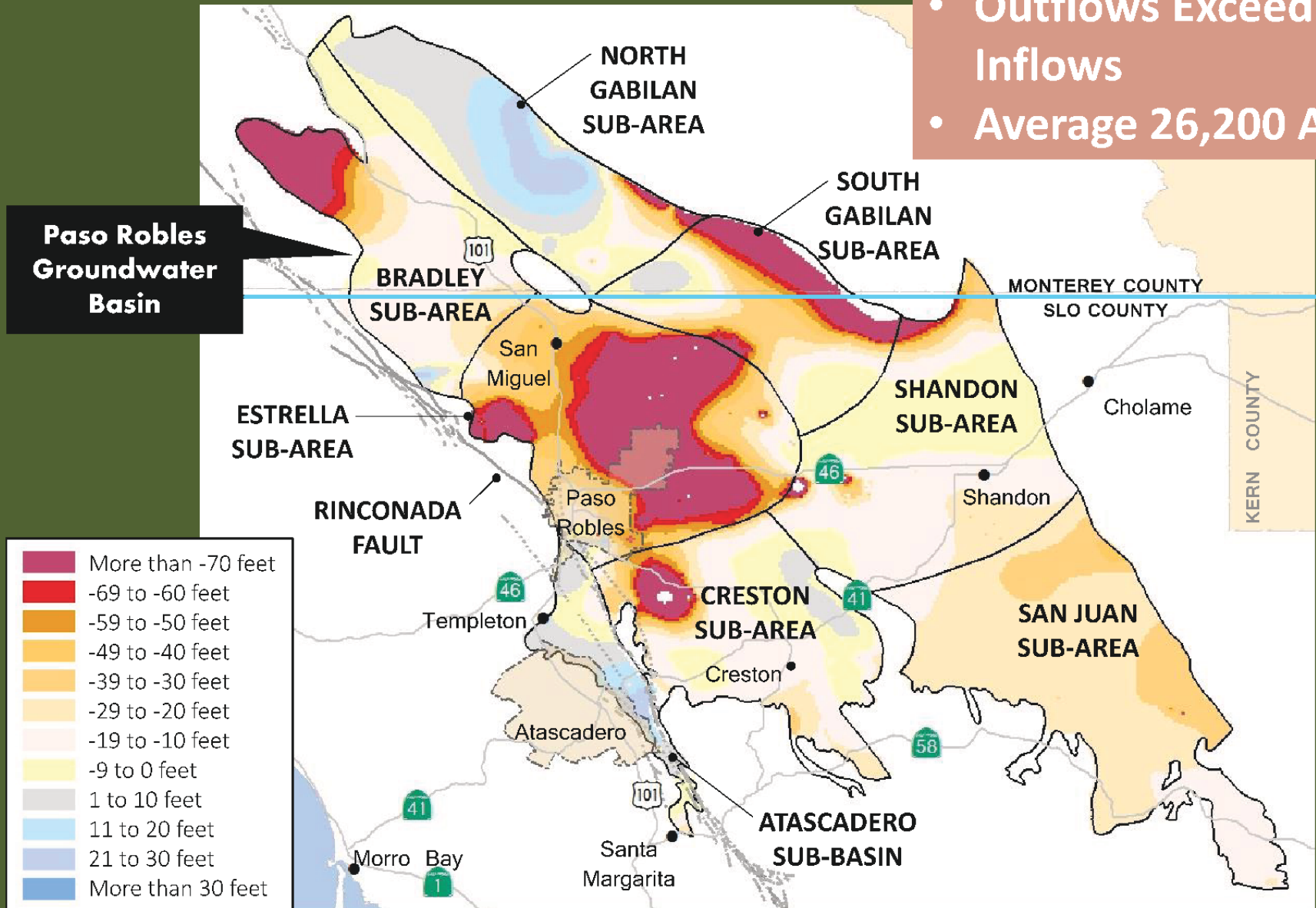
**Paso Robles  
Groundwater  
Basin**





# Change in Layer 4 Groundwater Elevations (2012-2040) Model Run 2 – Baseline with Growth

- Outflows Exceed Inflows
- Average 26,200 AFY



# Additional Model Runs

- **Analysis 1 – Demand Reduction Scenario**
- **Analysis 2 – Salinas River Recharge**
- **Analysis 3 – Offset Basin Pumping with Recycled Water**
- **Analysis 4 – Offset Water Demand in Estrella Sub-Area**
- **Analysis 5 – Additional Releases to Huer Huero Creek**
- **Analysis 6 – Additional Releases to Estrella River**
- **Analysis 7 – Offset Pumping in Creston Sub-Area**
- **Analysis 8 – Offset Pumping in Shandon Sub-Area**



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